

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

Illinois Commerce Commission	:	
On its Own Motion	:	
	:	
	:	20-NOI-03
Notice of Inquiry Regarding Rate	:	
Design and Affordability with	:	
Respect to Transportation	:	
Electrification and Other Beneficial	:	
Electrification	:	

**Initial Comments of Elevate Energy**

Elevate Energy submits these Comments in Response to the Illinois Commerce Commission's August 19, 2020 Notice of Inquiry. The Commission initiated this proceeding to seek "additional detail regarding rate design issues" related to transportation electrification, beneficial electrification, related infrastructure, and barriers to adoption, deployment, and affordability. (NOI at 3). Elevate Energy looks forward to participating in this process and helping to shape our mutual understanding of the potential benefits of transportation and other beneficial electrification and supportive rate designs.

Elevate Energy is a 145-employee 501(c)(3) not-for-profit corporation with a mission of *Smarter Energy Use for All*. We design and implement clean energy, water, and healthy housing programs that reach those who need them most. We administer hourly pricing programs for both ComEd and Ameren Illinois that, as discussed below, connect participants to the benefits of the smart grid and can benefit electric vehicle (EV) owners who charge at low-demand times.

We have organized our comments in the order that questions appear in the NOI and, while we have not responded to every question, our comments are numbered to correspond to the NOI.

**I. Introduction**

Variable electric rates are an important component of widespread electric vehicle adoption. The variable price of electricity can incentivize battery electric vehicle (BEV) and plug-in hybrid electric vehicle (PHEV) owners to charge at specific times, and two of Illinois' current variable electricity pricing programs are delivering savings for EV-owner participants.

The development of a robust electric vehicle market presents a major opportunity for Illinois businesses, communities, and consumers. Electric vehicles provide numerous

benefits: the consumer advantages of reduced fuel costs, especially when optimizing off-peak charging rates to lower the overall cost of car ownership, increased innovation and economic development from the growth of EV-related technologies and services, environmental benefits from reduced emissions, and greater integration and advancement of smart grid capabilities.

Illinois is uniquely situated to maximize these benefits and become a national EV market leader. First, Illinois is currently the only state with hourly electricity pricing programs available to all ratepayers. These programs ([ComEd's Hourly Pricing](#) and [Ameren Illinois Power Smart Pricing](#)) empower EV owners to leverage off-peak charging to significantly decrease the overall cost of car ownership, and they create an emerging market space for aiding technologies. Currently over 3,000 electric vehicle owners in Illinois take service under hourly rates, and this number is growing every year.

#### **IV. NOI Questions and Issues**

##### **A. Rate Design Impacts on Electric Vehicle Adoption and Use**

##### **8. Commercial Charging Station Providers**

**b. Should electric rate designs be used to encourage the deployment of public EV charging by commercial charging station providers? Why or why not?**

A dedicated commercial EV charging rate set below the standard commercial rate could be an effective incentive to boost the adoption and installation of public EV chargers, especially if the charging stations are being made available for free for people parking at a business, shopping center, restaurant, or other location.

Additionally, incentivizing the construction of charging stations in low-wealth neighborhoods could reduce barriers to EV ownership among low- and moderate-income households, especially for prospective EV owners who rent their homes or where it is not feasible to install a charger.

**c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate the deployment of public EV charging by commercial charging station providers?**

A dedicated commercial EV charging rate set below the standard commercial rate could be an effective incentive to boost the adoption and installation of public EV chargers. Depending on whether the business, other organization, or the individual using the charger is paying, it may or may not be feasible to use a time-of-use EV rate for commercial charging stations; a strategically priced lower fixed-price EV rate may be the best option to motivate deployment of public EV charging infrastructure.

##### **9. Low to Moderate Income Customer EV Adoption and Use**

**a. Do current electric rate designs present a barrier to the adoption or use of EV technology by low to moderate income citizens? If so, how?**

Currently, hourly and time-of-use electric rates make EVs more affordable to operate, because often participants on these rates are able to take advantage of the lowest-priced times to charge their vehicles.

One potential barrier of hourly and time-of-use electric rates, however, is that the lowest prices tend to be overnight and on weekends as they are demand-dependent. This means that the lowest prices typically occur at times that are easiest for customers working a traditional 9-to-5 job to take advantage of. Not all EV owners are able to charge during lower-priced times, such as those working third shift for example. Those who may not typically have their EV home during lower-priced hours are likely unable to take advantage of the lowest-priced hours for at-home residential charging.

Please note that while innovative rates like ComEd's Hourly Pricing and Ameren Illinois Power Smart Pricing can keep the costs of owning and operating an EV low, they do not necessarily diminish the cost to purchase an EV and install a home charging station, both of which are likely a higher barriers than the cost to charge.

**b. Should electric rate designs be used to encourage the use of EV technology by low to moderate income citizens? Why or why not?**

Electric vehicles typically have lower maintenance costs than internal combustion engine (ICE) vehicles, and another benefit to EV ownership is that charging with electricity is typically cheaper than gasoline. Low to moderate income residents are likely more sensitive to regular vehicle maintenance costs as well as gasoline prices, so encouraging adoption of EV technologies that help lower costs will likely help some customers' financial security and peace of mind.

As new EVs become more affordable and more second-hand EVs become available, ownership will become more common, and having robust cost-saving electric rates and programs available will help support the increasing number of personal electric vehicles owned by low to moderate income residents.

**c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate the use of EV technology by low to moderate income citizens?**

As EV ownership and access expands, rates should be designed to be at parity, or cheaper than the average cost of gasoline for non-EVs. While hourly and time-of-use electric rates in Illinois may already achieve this, not every household with an EV would see an overall benefit from these rates due to their household energy usage habits.

**d. How do electric rate designs used to incent use of EV technology by low to moderate income citizens affect the affordability of electric service for other electricity users?**

As long as the EV supply rates are reflective of the actual cost of supply at the time of consumption, i.e. hourly market prices or on-peak and off-peak market prices, and

the development of the EV supply rates are kept separate from the development of the standard bundled rate supply prices i.e. the fixed rate prices, they shouldn't affect the standard rate bundled supply prices for other electricity users. If the EV supply rates are less than the standard supply rates, and there isn't a separate supply procurement for them, then the prices for the other bundled supply electricity users may be slightly higher to make up for the lower EV rates. The amount the standard bundled prices may be higher is likely very small and may not even be seen unless there is a large amount of EV usage at the lower prices.

**e. Are there other ways to provide benefits from EVs to low to moderate income citizens?**

While hourly and time-of-use electric rates can provide significant cost-saving benefits, access and affordability of electric vehicles remain high barriers. Greater accessibility to affordable leasing of EVs and incentives such as instant tax rebates, affordable car loans, subsidized home charging station purchase and installation, public availability of charging stations, and discounted vehicle registration could be effective financial incentives.

**10. Environmental Impacts of EV Use**

**a. Do current electric rate designs prevent customers from using EVs in a manner that has a positive environmental impact? If so, how?**

Depending on the rate customers are taking service under, they may be incentivized differently. Customers taking service under default fixed-price rates pay the same price no matter what time of day they are using electricity, whereas customers taking service under an hourly or time-of-use rate are incentivized to schedule heavier electricity use for lower-priced times. Shifting electricity use for activities like charging EVs to low-demand times can help reduce electricity demand during peak times when the need for older, less efficient, and less environmentally friendly energy generation facilities is often needed.

**b. Should electric rate designs be used to encourage customers to use EVs in a manner that has a positive impact on the environment? Why or why not?**

Yes. More research should be done into the mix of generation sources for electric rates, and research should prioritize incentivizing the use of electricity at times of day that have the greatest environmental benefit; for example, cheaper electricity prices at times of day when the mix of generation includes more solar or wind.

**c. If you are in favor of providing incentives through electric rate design, what specific electric rate designs can be used to motivate customers to use EVs in a manner that has a positive impact on the environment?**

Variable rates with clear discounted periods of times incentive EV owners to charge their vehicles at the lowest priced times. Depending on the goals of the rate, the lower priced times can be assigned to low-demand periods of the day and/or week to incentivize shifting heavy electricity use away from peak-demand times. Alternatively, or additionally, lower-priced times may be aligned with times of day

when renewable energy generation is peaking. This has an additional benefit of serving as distributed energy battery storage for renewable energy generation, especially wind energy if it is at peak generation overnight and into the early morning hours.

### **C. Rate Design Implementation**

#### **1. Please identify any rate design changes that you would recommend be adopted in Illinois, including the rate design changes addressed above.**

We recommend creating a designated EV charging rate as either a time-of-use rate structure for commercial or residential charging and/or a fixed-price EV charging rate for commercial or residential charging. A time-of-use rate could incentivize charging EVs at lower-demand times or could be aligned with typical peak renewable energy generation times to incentivize charging with energy that has the greatest environmental benefits. We would also recommend more research into existing rate options to find ways to improve them and lead to more widespread adoption.

#### **3. Please identify how your recommended rate design changes may affect low to moderate income citizens.**

Any rate changes should take into consideration both the targeted benefits and the potential adverse impacts on low to moderate income households. Dedicated hourly, time-of-use, or fixed-price EV rates should be paired with very clear education and information to ensure customers taking service under the rate understand the optimal times to charge their vehicles. Additionally, protections can be built in to ensure that customers are never paying more than the default fixed-price rate offered by the utility to prevent a situation where a customer is financially penalized for charging their vehicle outside lower-priced times. This is especially important considering the variability of work schedules, including customers who work third shift or whose work schedule changes week by week, such as restaurant and hospital staff.

Respectfully Submitted,



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Elevate Energy